

## Trust and firms' performance in Western Balkan countries

Vučković, Valentina; Škuflić, Lorena; Mangafić, Jasmina

Veröffentlichungsversion / Published Version  
Zeitschriftenartikel / journal article

### Empfohlene Zitierung / Suggested Citation:

Vučković, V., Škuflić, L., & Mangafić, J. (2023). Trust and firms' performance in Western Balkan countries. *Economic Research-Ekonomska Istraživanja*, 36(2), 1-18. <https://doi.org/10.1080/1331677X.2022.2142255>

### Nutzungsbedingungen:

Dieser Text wird unter einer CC BY Lizenz (Namensnennung) zur Verfügung gestellt. Nähere Auskünfte zu den CC-Lizenzen finden Sie hier:  
<https://creativecommons.org/licenses/by/4.0/deed.de>

### Terms of use:

This document is made available under a CC BY Licence (Attribution). For more information see:  
<https://creativecommons.org/licenses/by/4.0>

# Trust and firms' performance in Western Balkan countries

Valentina Vučković, Lorena Škuflić & Jasmina Mangafić

**To cite this article:** Valentina Vučković, Lorena Škuflić & Jasmina Mangafić (2023) Trust and firms' performance in Western Balkan countries, Economic Research-Ekonomska Istraživanja, 36:2, 2142255, DOI: [10.1080/1331677X.2022.2142255](https://doi.org/10.1080/1331677X.2022.2142255)

**To link to this article:** <https://doi.org/10.1080/1331677X.2022.2142255>



© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 12 Nov 2022.



Submit your article to this journal [↗](#)



Article views: 363



View related articles [↗](#)



View Crossmark data [↗](#)

# Trust and firms' performance in Western Balkan countries

Valentina Vučković<sup>a</sup>, Lorena Škuflić<sup>a</sup> and Jasmina Mangafić<sup>b</sup>

<sup>a</sup>Department of Economic Theory, Faculty of Economics and Business, University of Zagreb Croatia, Zagreb, Croatia; <sup>b</sup>School of Economics and Business, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

## ABSTRACT

The purpose of the paper is to analyse the effects of interpersonal trust in business relations (proxied by trade credit) and institutional trust (proxied by firms' trust in courts) on firms' performance. The analysis is performed on a specific sample of 1298 firms in Western Balkan countries which are usually characterized by negative social capital that is considered to hinder economic and social development at all levels. The methodological approach is based on the propensity score matching method and the obtained results show that firms' perception of courts as fair, impartial and uncorrupted, is connected with lower costs and with positive expectations of an increase in sales in the upcoming period. On the other side, trade credit as a trust variable has a statistically significant and positive effect on firm productivity measured as sales per employee and on expectations of an increase in sales in the upcoming period. The paper contributes to the existing literature in terms of the choice of the post-socialist groups of countries for the analysis, the method that is used (treatment-effects estimation), and in terms of performing firm-level analysis of the effects of two types of trust on selected variables of firm performance.

## ARTICLE HISTORY

Received 16 July 2021

Accepted 26 October 2022

## KEYWORDS

Transition; Western Balkan; trust; firm performance; costs; productivity

## JEL CODES

D22; P20; Z13

## 1. Introduction

Although the six countries of the Western Balkans (WB)—Albania, Bosnia and Herzegovina, FYR Macedonia, Kosovo, Montenegro and Serbia—followed different paths to a market economy, what they all have in common is a poor position on various measures of business environment quality relative to both EU, and other transition countries (e.g. Global Competitiveness Index, Doing Business, Index of Economic Freedom).

Doing business, investing and working across borders is complex and often difficult, particularly in the WB region. The break-up of the former Yugoslavia and transition processes resulted in a number of obstacles to the development of a business-friendly environment, the examples of which are low levels of international trust

**CONTACT** Valentina Vučković  [vvuckovic@net.efzg.hr](mailto:vvuckovic@net.efzg.hr)

© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

and accompanying political instability, weak institutions, limited and expensive access to finance, a growing brain drain, complicated and time-consuming trading processes and poor-quality infrastructure (Sanfey & Milatović, 2019, p. 15). The general motivation for the analysis performed in this paper stems from the observed large differences between the institutional environment of transition and Western market economies. In Western economies, with a complete institutional framework, a clear differentiation is established between personal and business relations, with the latter being based on business practices, the laws relating to contracts, the institutional frameworks that govern these contracts and their implementation (Tan et al., 2009, p. 544). On the other side, in the context of transition countries, the key role of trust in business relations is seen in substituting for an incomplete institutional framework (Welter & Smallbone, 2006, p. 468). Although the main reason for such a gap in a specific group of Western Balkan post-socialist countries was seen primarily in the breakdown of social capital in the socialist regime, the level of trust still did not increase over years and this brought into question such arguments (Golubović et al., 2014). Nonetheless, analysis of such, usually described as ‘fragile’ environments, may offer recommendations for economic revival (Efendic et al., 2015) and therefore justifies the choice of this sample of countries for the analysis in this paper. Also, the same authors (Efendic et al., 2015, p. 556) state that a micro (firm) perspective is valuable, since in a weak institutional context there is a significant discrepancy in the individual experience of institutions, with positive experiences being associated with greater entrepreneurial dynamism.

The main research question is whether trust, as an important part of economic transactions that are not formalized through contractual arrangements, has an effect on performance of firms in this specific sample of Western Balkans post-socialist countries. In order to answer this research question, we approximate the effects of two dimensions of trust, both institutional and interpersonal, comparing the outcomes of firms that (1) have trust in courts and (2) have trust in their partners through sale on credit (treatment groups), with the outcomes of similar firms that do not have trust (comparison or control groups). In doing so, we used Propensity Score Matching (PSM) methodology to estimate the effects of trust against the counterfactual. This method is often used in research dealing with various aspects of trust as it is considered to reduce bias and show clearer causal relationships. This method actually imitates a controlled experiment and assumes the creation of a counterfactual that is similar to the treated population by matching them on a variety of variables in order to control for observable differences (see e.g. Berulava, 2013; Richey & Ikeda, 2009).

The contribution of this paper is threefold. First, by focusing on examining the importance of trust as one of the factors within the business environment, we decrease the disparity between a large body of literature that emphasise the importance of trust for well-established markets on the one side and the literature analysing the importance of trust in transition countries on the other side (e.g. Fukuyama, 1995; Kornai et al., 2004; Manolova et al., 2007; Raiser et al., 2002, 2007; Rus & Iglič, 2005). Also, as the existing studies dominantly focus on the analysis of determinants of trust, we contribute to the literature by analysing the economic effects of trust on

firms' performance. Secondly, we analyse the role of trust in a specific group of transition countries (i.e. WB countries) which all aspire to become EU members and have living standards that are below both the EU average and the average of the group of 11 former socialist countries in central and eastern Europe that joined the EU in 2004, 2007 and 2013. In these countries, trust is seen as a *commodity* that is in relatively short supply (Raiser et al., 2004, p. 55), and these low levels of trust often constrain market entry, enterprise growth, and competition whilst encouraging unproductive forms of entrepreneurship, which is especially pronounced in environments with a weakly developed formal institutional frame where trust could substitute for some of the institutional deficiencies (Höhmnn & Welter, 2005, p. 2). Moreover, according to the social capital theory, a low level of trust harms economic efficiency by increasing transaction costs and reducing the volume of economic transactions (Golubović et al., 2014). Precisely, since institutional and interpersonal trust can simultaneously complement and/or substitute each other, through descriptive analysis of different concepts of trust, we obtain insights into which situation holds in WB countries. Thirdly, we econometrically analyse whether the firms' trust in courts and share of goods sold on trade credit affects their business performance measured through the total costs of sales, productivity, and expectations regarding sales growth in the upcoming period.

The paper is structured as follows. After the introduction, in [Section 2](#) we offer the overview of existing theoretical and empirical literature on the importance of trust for firms' performance with special emphasis on transition countries. In [Section 3](#) we analyse the business environment context in WB countries and various dimensions of trust. In [Section 4](#) we present our hypotheses and expected results, and perform the firm-level econometric analysis of the effects of trust on firm performance. Finally, [Section 5](#) concludes.

## 2. Literature review

### 2.1. Concept of trust

Trust, which is one component of social capital that promotes cooperative behaviour, has been studied by several disciplines including psychology, sociology, philosophy, political science, economics and business administration. The results of this broad range of research are its various definitions and ways of measuring it (for a detailed discussion on definitions, forms of trust and its sources see Höhmnn & Malieva, 2005).

According to McKnight and Chervany (2001, p. 35), trust encompasses five concepts, which are interpersonal trust, trusting beliefs, system trust, dispositional trust, and intention to trust. Out of these concepts, two of them attract the most attention within the economic literature: interpersonal and institutional trust. While interpersonal (or social<sup>1</sup>) trust refers to trust in unknown people and is assumed to serve as the basis for collective political actions for the public, institutional (or system) trust refers to trust in institutions of state and civil society crucial for the functioning of the state bodies (i.e. government, parliament, courts, state administration or police), collective representatives of society (political parties or various kinds of associations) and the channels of information (the mass media) (Aasland et al., 2012, p. 116;

Mickiewicz & Rebmann, 2020). More precisely, interpersonal trust is one actor's willingness to depend on the other actor with a sense of security, while institutional trust is the belief that appropriate impersonal structures are in place to enable one to assume a successful future venture (McKnight & Chervany, 2001; Pennington et al., 2003). In the context of interpersonal trust on the firm level, entrepreneurs need to gain the trust of others who cannot obtain full information as well as trust other actors such as partners, employees, and suppliers that they will deliver the promises (Mickiewicz & Rebmann, 2020, p. 2).

The increased complexity and uncertainty within the business environment have made trust crucial as it can lessen the risks intrinsic within entrepreneurial activities as well as serve as a governing mechanism for various entrepreneurial relations (Welter, 2012, p. 205). Two of the most frequently mentioned positive effects of trust are a reduction in transaction costs and improved cooperation among various actors. While transaction costs are reduced as a direct consequence of interpersonal trust that removes opportunistic behaviour and the need for expensive safeguards, cooperation among economic actors is improved by the institutional trust that removes the entry barriers and enables access to new actors, new resources and opportunities (Rus & Iglič, 2005, p. 387).

## **2.2. Trust in transition countries**

The experience of transition countries is somewhat specific and deserves special attention. In most mature market economies, the institutional framework has reached steady-state equilibrium while in transition economies, both formal and informal institutional mechanisms are constantly changing (Tan et al., 2009, p. 546). Moreover, the existing data for WB countries which are in our focus imply that the level of trust in these countries significantly lags behind the level of trust in the developed market economies (Golubović et al., 2014). As entrepreneurs in such circumstances cannot rely on the typical foundations, such as laws and/or regulations, they could focus on trust as a complement to any problem-solving (Khanna, 2018). According to Knack and Keefer (1997, p. 1252), entrepreneurs in higher-trust societies spend less to protect themselves from being exploited in economic transactions, written contracts are less likely to be needed, litigation may be less frequent, and they are also likely to spend less to protect themselves from unlawful or criminal abuses of their property rights.

Weak legislative structures and the absence of effective market regulation and property-right enforcement rules prohibit mutually profitable business transactions to various degrees (van Ees & Bachmann, 2005, p. 99). Both formal, as well as informal components of institutional frameworks, guide and regulate firm behaviour. In the context of transition economies, which are characterized by the 'fluidity, inconsistency, and ambivalence of their formal institutions' (Peng, 2004, p. 1070), existing research emphasises that trust substitutes for inefficient and incomplete institutional framework, reduces uncertainty and encourages entrepreneurial commitment to economic exchange (Höhmnn & Welter, 2002).

Although relatively scarce, existing empirical literature dealing with the analysis of trust in transition countries offers some valuable insights. For example, Alon and Hageman (2013), based on an institutional perspective, propose that some formal and informal determinants are reflected in the levels of trust toward formal institutions and among people. Precisely, based on a sample of more than 5000 firms in 20 transition countries, the authors show that higher levels of interpersonal trust are associated with lower levels of tax compliance. Also, when rule-based trust is high, the presence of tax enforcement activities in the form of visits and inspections by tax officials does not change the relationship between rule-based trust and unofficial payments.

Raiser et al. (2004) employ data from a 2002 survey of firms in 26 transition countries conducted by the European Bank for Reconstruction and Development (EBRD) together with the World Bank, which asked firms specific questions about the contracting environment and the quality of the courts (i.e. Business Environment and Enterprise Performance Survey, BEEPS) and investigate the country-level variation in the contracting environment and relate this to other country characteristics, such as progress in economic, legal, and institutional reform. The authors found that trust is higher where courts are perceived by firms to be fair and honest, although this positive association with trust does not extend to other dimensions of the legal system, such as speed and affordability.

Berulava (2013) analysed the impact of trust-based relations on a firm's performance in transition economies, using trade credit as a proxy of trust-based relations, by the means of treatment effects analysis. His results suggest that, in transition countries, informal trust-based institutions of contract governance positively affect the performance of firms. Precisely, trade credits have a positive effect on sales, firms' innovation activities, labour productivity, and reinvested profits.

Akimova and Schwödiauer (2003), by analysing 285 Ukrainian firms, found that institutional trust, i.e. trust in courts, has a positive effect on firm performance if measured by growth in sales and labour productivity. Further, Efendic et al. (2015), in analysing the sample of Bosnia and Herzegovina's young businesses, showed that both entrepreneurs' institutional trust and stronger social ties are associated with higher entrepreneurial dynamics.

### 3. Business environment context and trust in Western Balkan countries

Major country rankings (such as Worldwide Governance Indicators and Doing Business of World Bank, Index of Economic Freedom of Heritage Foundation, Global Competitiveness Index of World Economic Forum...) show that the political and economic systems in the post-socialist countries of East Central Europe, South East Europe and the Western Balkans are less democratic and less efficient than the West European average (Aasland et al., 2012).

Although in the early 1990s, the Western Balkans experienced a rapid entry of businesses in the private sector, these entry rates slowed down in the late 1990s as new entrepreneurs faced many barriers in developing their businesses (Bartlett, 2009, p. 35). One of the key sources of economic problems in the Western Balkans region

is found in the obstacles that private companies face within the business environment. Frequently cited problems, such as the functioning of tax administration, labour market, macroeconomic framework, and rule of law, are still perceived as the most binding constraints. On top of that, business leaders do not perceive governments are doing much to tackle corruption or make progress in transparency (Sanfey & Milatović, 2018).

According to the Transition Report 2019–2020 (EBRD, 2020), which assesses the position of countries from the aspect of 6 desirable dimensions of a sustainable market economy—competitive, well-managed, green, inclusive, resilient and integrated—Western Balkan countries cannot be classified as functioning sustainable economies. The most problematic areas are found in the competitiveness and governance segment. While there are large variations between countries in the region, there is also evident a large gap between the Western Balkan countries and the EU11 average (i.e. countries that joined the EU after 2004).

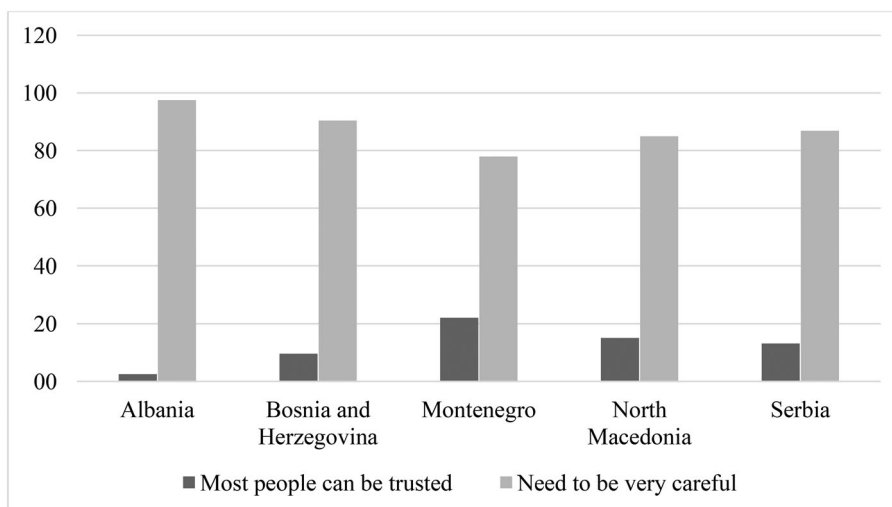
Even though there are differences among the countries in the WB group, what they all have in common is the low quality of the business environment which affects the performance of firms, as well as the low level of trust (both interpersonal and institutional). Also, their common feature is a long period spent in a specific social and economic system, and this period is often seen as a factor most responsible for the deterioration of all forms of trust. After the regime shift, there has emerged a situation of so called *negative social capital*, which encompasses all types of social networking which result in corruption and rent-seeking, crime, and the development of the shadow economy (Golubović et al., 2014, p. 90), which are all recognized as significant obstacles for doing business. Precisely, Kresic et al. (2017) performed an econometric analysis of the revealed costs of business environment deficiencies in the Western Balkans, and their results (pp. 2–3) showed that barriers differ based on the specific characteristics of firms, i.e. competition from the informal sector is a particular burden for smaller, local market- and service-oriented businesses, while corruption is especially damaging to more innovative firms. Further, the authors concluded that the problems of tax rates and lack of access to finance are more of an obstacle for manufacturing firms.

Therefore, in the following lines we proceed with the analysis of data from the *Business Environment and Enterprise Performance Survey* (BEEPS)<sup>2</sup>, last carried out in 2019. The BEEPS include questions about the subjective perceptions of business owners and senior managers about different potential problems, and as such is rather revealing about the actual situation on the ground. This is a firm-level survey of a representative sample of a private sector in a specific economy covering a wide range of business environment topics including access to finance, corruption, infrastructure, crime, competition, and firms' performance measures.

### 3.1. How can we measure trust?

As trust is a multidimensional and complex topic to research empirically, particularly because of its social, political, and cultural embeddedness as well as its dynamic nature, the key methodological issues stem from the choice of an adequate empirical model and variables (Höhmman & Welter, 2002, p. 8). From the aspect of measuring





**Figure 1.** Generalized interpersonal trust.

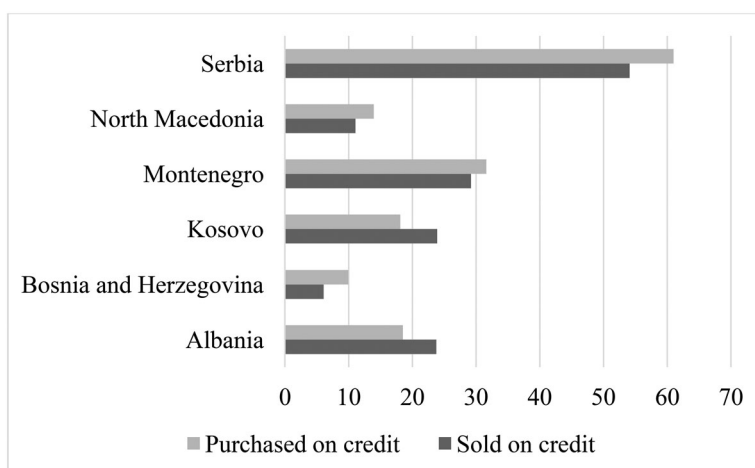
Source: Authors compilation based on data from EVS/WVS (2020).

different trust concepts and the selection of suitable empirical methods and models, Welter and Smallbone (2006) say that ‘the game theory advocates empirical research of trust relying on artificial laboratory experiments while in the organization theory, research of trust is based on large-scale surveys and quantitative methods’ (p. 469). In this paper, the second approach is followed.

When measuring interpersonal trust, there are two surveys available. The first one measures the generalized interpersonal trust (World Values Survey, WVS), and the other measures the trust among enterprises (BEEPS). Analysing the WVS latest data for 2018/2019, we can see that the WB countries can be labeled as low-trust countries from the aspect of generalized interpersonal trust (Figure 1). This could be related to the quality of democracy in these countries as functional democracy requires a considerable level of interpersonal trust in the society, which leads to a sense of cooperation and further to stable democracy (Petricusic, 2013).

Another common side of trust in all WB countries is relatively high trust in three specific institutions, i.e. religious institutions, armed forces, and the police. This is in line with some previous findings that people in the region trust the people in uniforms the most (Golubović et al., 2014; Petričušić, 2013; Šporer & Sekulić, 2011). Fukuyama (1995, Chapter 27) highlighted that social capital, which has its origins in *irrational* phenomena like religion and traditional ethics, is needed for the proper functioning of rational modern economic and political institutions, which has relevant implications for the modernization process.

Further, from the existing literature, there are two measures of interpersonal trust that can be employed in the analysis of business relations stemming from the BEEPS database. Knack and Keefer (1997, p. 1252) highlight that ‘trust-sensitive transactions include those in which goods and services are provided in exchange for future payment, employment contracts in which managers rely on employees to accomplish tasks that are difficult to monitor, and investments and savings decisions that rely on assurances by governments or banks that they will not expropriate these assets’.

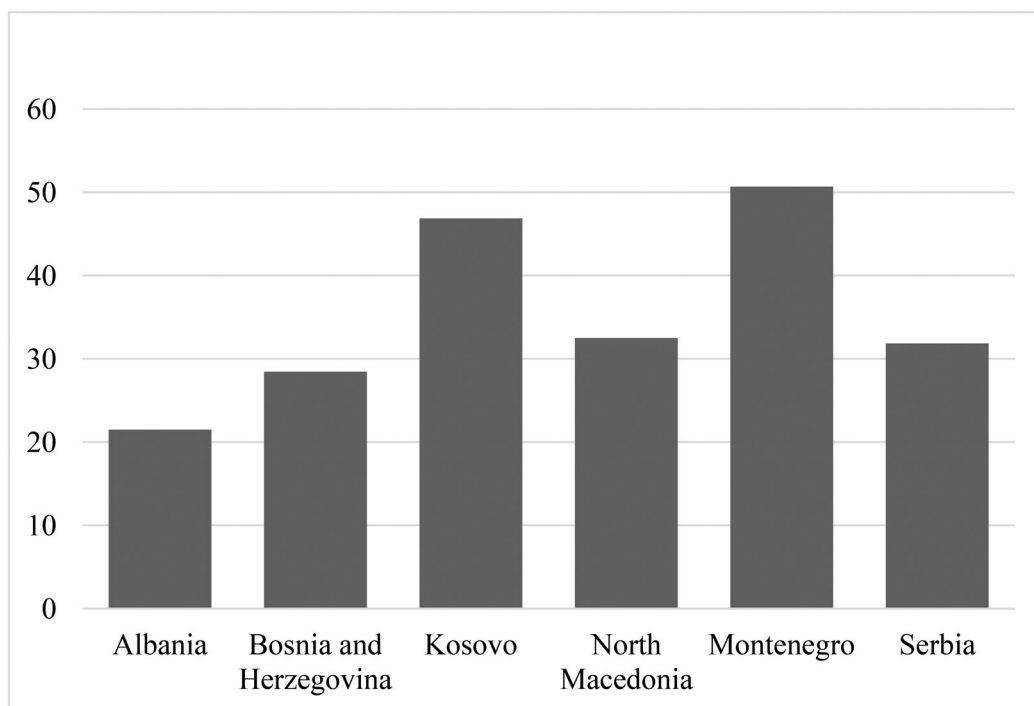


**Figure 2.** Share of firm's sales (purchases) that are sold (purchased) on credit as a proxy for inter-personal trust in business relations.

Source: Enterprise Surveys (<http://www.enterprisesurveys.org>). The World Bank

Accordingly, the other two variables of interest are measures of trade credit and prepayment (as in Raiser et al., 2007), which could serve as a proxy for trust among firms. The BEEPS database contains a question regarding this, i.e. '... what percentage of this establishment's total annual sales of its goods or services was sold on credit?', and '... what percentage of the value of total annual purchases of material inputs or services was purchased on credit?'. Data are presented in Figure 2. However, it should be noted that there are some limitations in using these data as a trust measure. For example, trade credit can be used strategically as an instrument of price discrimination, the returns to which could be higher in the low-trust environment as more customers tend to be constrained by credit (Raiser et al., 2007). Also, one of the key problems with estimating the effects of trade credit as a trust variable on business performance is in the causality issue (Berulava, 2013).

Finally, the BEEPS database can also serve as a source of data for constructing the measure of institutional trust on the firm level. Within the public choice theory, the role of secure property rights and a supportive institutional framework for new business entry is strongly emphasised and includes an impartial judiciary (Djankov et al., 2002, 2003). Thus, our variable of interest is related to the firms' perception of the quality of courts which is analysed within the question *Please tell me if you 'Strongly disagree', 'Tend to disagree', 'Tend to agree', or 'Strongly agree' with the statement: The court system is fair, impartial and uncorrupted*. As Raiser et al. (2004) point out, the variable which describes the courts' fairness and honesty is the only measure related to courts that could be related to higher trust at the level of firms. The data are presented in Figure 3. There are also some issues with this variable and they in general refer to the question of why would firms within the same country vary in their assessments of the courts if they operate under the same laws. Johnson et al. (1999, p. 7) offer three explanations for differences within countries: (1) the accessibility of the courts could be objectively different for different firms or for different managers (e.g. larger firms are more likely to have better perception); (2) the unmeasured



**Figure 3.** Perceptions of the quality of the courts as a measure of institutional trust.

Source: Enterprise Surveys (<http://www.enterprisesurveys.org>). The World Bank

characteristics of the managers interviewed and (3) managers could differ in random ways in their perceptions of the courts' effectiveness (i.e. given the speed of change of these countries' institutions).

## 4. Econometric analysis of trust on firm performance

### 4.1. Methodology and data used

Combining the above-presented discussion on the theoretical and empirical foundation for our analysis, as well as the descriptive analysis of trust in WB countries, we formulate two research hypotheses:

*H1: Higher institutional trust improves firm performance in WB countries.*

*H2: Higher interpersonal trust in business relations improves firm performance in WB countries.*

Thus, as a first trust variable (in testing H1) we use a variable that captures the firms' perception of the quality of courts, as a proxy for the institutional dimension of trust. This is a dummy variable coded 1 if courts are perceived fair, impartial and uncorrupted, and 0 otherwise. The rationale for expecting a positive influence of trust in courts on firm performance stems from the literature presented above and from the assumption that a firm that believes that it can rely on the courts, will be more motivated to enter into contractual arrangements with new suppliers and/or

customers, and will be less motivated to be locked into already established networks (Akimova & Schwödiauer, 2003). Contrary, if courts are perceived to be unfair, partial and corrupt, firms will rely more on reputation, collecting information on new trading partners from other actors, sharing their own information on trading partners with others etc. (Raiser et al., 2004). Such actions are assumed to increase the firms' costs.

The other dimension of trust analysed (in testing H2), is interpersonal trust in business relations, and it is captured by the trade credit variable which is a dummy variable coded 1 if more than 20% of sales were sold on credit and coded as 0 otherwise. The rationale for using trade credit as a proxy for trust is that selling on credit presumes that firms believe they will be paid due to their trust in the economic actors or due to the trust in the ability of a third party in enforcing the payment (Berulava, 2013; Raiser et al., 2004). Moreover, at the firm level, interpersonal trust is considered to be an important factor in forming expectations regarding the trust in other business parties (Welter & Smallbone, 2011). We expect a positive effect of interpersonal trust on firm performance.

We approximated the effects of two dimensions of trust by comparing the outcomes of firms that (1) have trust in courts and (2) have trust in their partners through sale on credit (treatment group), with the outcomes of similar firms that do not have trust (comparison group). We used Propensity Score Matching (PSM) to estimate the effects of trust against the counterfactual. Propensity-score matching uses an average of the outcomes of similar subjects who get the treatment level to impute the missing potential outcome for each subject. The average treatment effect is computed by taking the average of the difference between the observed and potential outcomes for each subject (StataCorp, 2013). Following some previous research (Berulava, 2013; Richey & Ikeda, 2009), the advantage of this method is in overcoming the problem of identification of the causality between trust-based relations and firm performance. As previously stated, the goal is to estimate the effect of the firms' trust, considering what would have happened if they do not have trust. We can thus estimate the difference between defined outcome for treatment and comparison group, i.e. the average treatment effect on the treated (ATET). For the estimation we use Stata's built-in 'teffects' command, which is flexible in terms of estimators and functional forms for outcome and treatment-assignment models (StataCorp, 2013). Average treatment effect on the treated in general is:

$$ATET = E(y_{k_i - y_{0i}} | \tau = k)$$

The potential outcome is denoted by the random variable  $y_{\tau}$  with  $\tau \in \{0, 1, \dots, K\}$ ,  $y_{0i}$  is the outcome individual  $i$  if they do not receive the treatment, where ( $i = 1, \dots, n$ );  $y_{ki}$  is the potential outcome for individual  $i$  if they receive the treatment ( $k = 1, \dots, K$ ). Usually people think about the binary case where there are only two levels  $y_{0i}$  and  $y_{1i}$  (StataCorp, 2013). Our sample includes data for total of 1298 firms in 5 WB countries (Albania, Bosnia and Herzegovina, Montenegro, North Macedonia and Serbia)<sup>3</sup> from BEEPS. We excluded from the model firms that have secured or attempted to secure a government contract, in order to avoid potential bias. When it comes to sample characteristics, 38.9% of firms are in the manufacturing sector,

**Table 1.** Variables used in the analysis.

	TREATMENT VARIABLES
Trust in courts	1 = courts are perceived fair, impartial and uncorrupted, 0 = otherwise
Trade credit	1 = more than 20% of sales were sold on credit, 0 = otherwise
	<b>OUTCOME VARIABLES</b>
Productivity	Total annual sales per employee (in logs).
Total sales expected	1 = firm expects growth in sales; 0 = otherwise
Total costs (expressed as costs per employee)	Sum of all labour costs (wages, salaries, bonuses, social security payments), the total annual cost of raw materials and intermediate goods used in production, the total annual cost of electricity and the total annual cost of fuel (in logs)
	<b>EXPLANATORY (CONTROL) VARIABLES</b>
Size	Number of employees (in logs)
Sector	1 = manufacturing; 0 = otherwise
Market orientation	1 = International market; 0 = otherwise
Foreign ownership	The percentage of foreign ownership (i.e. the percentage of ownership held by a foreign shareholder, which may be in the form of individuals, companies, or organizations)
Country dummy	1 = firm present in a specific country; 0 = otherwise
Security payment	1 = firm made security payments; 0 = otherwise
Age	Age of the firm (years, in logs)
Product innovation	1 = introduced new or improved products or services; 0 = otherwise
Process innovation	1 = introduced new or improved process; 0 = otherwise
Technology	1 = firm uses technology licensed from a foreign-owned company; 0 = otherwise
Competition	1 = firm competes against unregistered or informal establishments
Tax inspections	1 = over the past year firm was visited or inspected by tax officials or required to meet with them; 0 = otherwise

Source: Authors' compilation.

73.1% of firms are SMEs, while 21% of them are orientated to the international market (i.e. the main market in which the firm sold its main product was international). It is also interesting to observe that 69.4% of firms were visited or inspected by tax officials, and as much as 47.3% of firms state that they compete against unregistered or informal competitors. Table 1 classifies and describes in more detail the variables of treatment, outcome, and control/explanatory, that are used in the model, while Table 2 gives the descriptive statistics of variables. We followed the recommendation of Caliendo and Kopeinig (2005) who state that the variables selected to estimate a propensity score should relate to outcomes and treatment, as well as they should be based on economic theory and previous empirical findings (Caliendo & Kopeinig, 2005).

#### 4.2. Results and discussion

The obtained results are presented in Table 3. The results show that both types of trust, institutional and interpersonal, have an effect on firms' performance, but depending on which outcome variable is analysed. Precisely, there is a statistically significant relationship between trust in courts (institutional trust) and two variables of firms' performance, i.e. firms' perception of courts as fair, impartial, and uncorrupted, is connected with lower costs and with their positive expectations of an increase in sales in the upcoming period. On the other side, trade credit as a trust variable has a statistically significant and positive effect on firm productivity measured as sales per employee and is connected with positive expectations of an increase in sales in the

**Table 2.** Descriptive statistics.

Variable	Observations	Mean	Std. Dev.
Total sales per employee (EUR)	1,152	4838127	2.17
Total sale expected	1,279	0.601	0.489
Trust (courts)	1,298	0.301	0.459
Trust (trade credit)	1,298	0.290	0.454
Size (number of employees)	1,292	87.862	280.667
Sector	1,298	0.389	0.488
Market orientation	1,296	0.209	0.407
Foreign ownership	1,290	9.974	29.052
Age	1,292	19.593	14.427
Security	1,290	0.591	0.492
Tax inspections	1,285	0.694	0.461
Product innovation	1,294	0.432	0.496
Process innovation	1,277	0.236	0.425
Competition from the informal sector	1,226	0.473	0.499
Technology licensed from the foreign-owned company	1,294	0.169	0.375

Source: Authors' calculation.

**Table 3.** Average treatment effects on the treated (ATET).

OUTPUT	Trade credit (1 vs. 0)	Trust in courts (1 vs. 0)
<i>Productivity</i>	0.297** (0.147)	0.152 (0.136)
<i>Total sales expected</i>	0.094*** (0.052)	0.115* (0.045)
<i>Costs</i>	0.060 (0.139)	−0.276*** (0.148)

Note: Standard errors in parentheses: \* $p < 0.01$ , \*\* $p < 0.05$ , \*\*\* $p < 0.10$ .

Source: Authors' calculation.

upcoming period. Therefore, an area in which both types of trust proved to be relevant is in forming the expectations for growth in sales.

After performing the treatment effects model, there are three diagnostics provided in order to examine whether the treatment model balanced the covariates: diagnostic summary report, graphical diagnostics in the form of Kernel density plots (smoothed) or box plots comparing propensity scores across treatment groups. We attach the diagnostic Kernel density plots in [Appendix](#). The performed diagnostics show that our model balances covariates.

The obtained result corresponds to the previous findings, e.g. research of Rus and Iglič (2005) who explored the direct and indirect effects of different types of trust on firm performance, in Slovenia and Bosnia and Herzegovina. Their results show that the institutional environment in Slovenia generates more trust, which enables actors to base their business relationships on trust rather than contracts. In addition, when actors rely on trust, it is usually institutional trust rather than interpersonal trust. The finding that firms that perceive courts as fair, impartial and uncorrupted have lower costs is also in line with Thanetsunthorn and Wuthisatian (2019) research, as they pointed out that institutional trust is a critical component in risk assessment and management which contributes to lowering costs and increasing transactions benefits among businesses. Further, regarding the expectations of sales growth as the outcome variable, our finding is in line with the research of Akimova and Schwödiauer (2003)

who showed that positive perceptions of the managers about the effectiveness of courts have a positive influence on their sales and productivity growth expectations.

Further, when observing trust through the lens of trade credit, our finding corresponds to the findings of Berulava (2013) who showed that higher trust-based relations result in higher labour productivity. However, we also find interesting the insignificance of trade credit as a trust variable in a model with costs as the outcome variable, since trade credit and costs associated with it in selected countries could be involuntary (Raiser et al., 2004) or a result of informal networking (as in Efendic & Ledeneva, 2019).

The obtained results are also in line with some previous broader research that highlights that in most of the (post)transition countries, informal practices could serve as a substitute to formal procedures (Šimić Banović et al., 2020). Further, according to Helmke and Levitsky (2004), ineffective formal rules that are enforced through public institutions, in coexistence with substitutive or competing informal institutions result in divergent outcomes, which further leads to a growing role of informal practices (see Wallace & Latcheva, 2006).

## 5. Conclusion

Trust has been long recognized as an important factor influencing business transactions, and in prior studies, it is seen as an essential element needed in order to lower transaction costs and constrain any opportunistic behaviour. The results obtained by the PSM in this paper confirm that higher trust could result in better business performance (as in Akimova & Schwödiauer, 2003; Berulava, 2013; Rus & Iglič, 2005; Thanetsunthorn & Wuthisatian, 2019). However, we show that the effect of trust on firm performance differs depending on which outcome variable of firm performance is analysed. Precisely, the obtained results show that firms' perception of courts as fair, impartial and uncorrupted, is connected with lower costs and with positive expectations of an increase in sales in the upcoming period. On the other side, trade credit as an interpersonal trust variable has a statistically significant and positive effect on firm productivity measured as sales per employee and on expectations of an increase in sales in the upcoming period.

Yet, there are some methodological issues that need to be raised. The largest one is related to the endogeneity issue. Also, as stressed by Efendic et al. (2015), trust in formal institutions varies between regions and sectors, so the trust (both general and institutional) of individual entrepreneurs will also vary in relation to different factors such as their individual characteristics, experiences, and social status. Further, all the countries in our sample show an extremely high degree of trust in religious institutions, army and police, which is certainly a consequence of historical heritage, but also the fear of the population from the possible outbreak of new conflict. At the same time, one cannot neglect that the analysed region of WB has been exposed to the problem of a high influx of migrants in recent years, as it is on the main migrant route. Finally, low trust in institutions is also a result of the high level of poverty that is present in this region.

All of this points out the need for future research on the main determinants of trust in the WB region, in order to obtain insights into potential causes of such patterns, as they are reflected in the firm's business performance. For future research, we think that the privatization processes that were carried out in the countries of the WB region should be also taken into consideration, as distrust could also be the result of a large number of privatization-related affairs. As Uslaner (2004) argued, certain types of trust can contribute to corruption and the resulting inequality can further undermine trust. This is an issue that we see as a part of our future research avenue, especially for WB countries that are characterized by both high corruption and long-lasting clientelism.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## Notes

1. Also called generalized trust.
2. Enterprise Surveys (<http://www.enterprisesurveys.org>). The World Bank
3. Kosovo is excluded as an outlier.

## References

- Aasland, A., Grødeland, Å. B., & Pleines, H. (2012). Trust and informal practice among elites in East Central Europe, South East Europe and the West Balkans. *Europe-Asia Studies*, 64(1), 115–143. <https://doi.org/10.1080/09668136.2011.635897>
- Akimova, I., & Schwödiauer, G. (2003). *Trust in commercial courts and its effect on the performance of Ukrainian SMEs*. Otto-von-Guericke- University, Fak. für Wirtschaftswiss.
- Alon, A., & Hageman, A. M. (2013). The impact of corruption on firm tax compliance in transition economies: Whom do you trust? *Journal of Business Ethics*, 116(3), 479–494. <https://doi.org/10.1007/s10551-012-1457-5>
- Bartlett, W. (2009). Economic development in the European super-periphery: Evidence from the Western Balkans. *Economic Annals*, 54(181), 21–44. <https://doi.org/10.2298/EKA0981021B>
- Berulava, G. (2013). *Do trust-based relations improve firm's performance? Evidence from transition economies*. <https://mpira.ub.uni-muenchen.de/id/eprint/48430>
- Caliendo, M., & Kopeinig, S. (2005). Some practical guidance for the implementation of propensity score matching. IZA Discussion Paper, No. 1588. The Institute for the Study of Labor (IZA).
- Djankov, S., Glaeser, E., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2003). The new comparative economics. *Journal of Comparative Economics*, 31(4), 595–619.
- Djankov, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2002). The regulation of entry. *The Quarterly Journal of Economics*, 117(1), 1–37. <https://doi.org/10.1162/003355302753399436>
- EBRD. (2020). *Transition report 2019-20*.
- Efendic, A., & Ledeneva, A. (2019). The cost of informal networking in the Western Balkans region matters. In E. Gordy & A. Efendić (Eds.), *Meaningful Reform in the Western Balkans—Between Formal Institutions and Informal Practices* (pp. 85–101). Peter Lang International Academic Publishers.



- Efendic, A., Mickiewicz, T., & Rebmann, A. (2015). Growth aspirations and social capital: Young firms in a post-conflict environment. *International Small Business Journal: Researching Entrepreneurship*, 33(5), 537–561. <https://doi.org/10.1177/0266242613516987>
- EVS/WVS. (2020). European values study and world values survey: Joint EVS/WVS 2017–2021 Dataset (Joint EVS/WVS). JD Systems Institute & WVSA. Dataset Version 1.0.0, <https://doi.org/10.14281/18241.2>
- Fukuyama, F. (1995). *Trust: The social virtues and the creation of prosperity* (Vol. 99). Free Press.
- Golubović, N., Džunić, M., & Marinković, S. (2014). A comparative analysis of social capital in the Western Balkan countries. *Industrija*, 42(2), 71–92.
- Helmke, G., & Levitsky, S. (2004). Informal institutions and comparative politics: A research agenda. *Perspectives on Politics*, 2(4), 725–740. <https://doi.org/10.1017/S1537592704040472>
- Höhmnn, H. H., & Malieva, E. (2005). The concept of trust: Some notes on definitions, forms and sources. In H. H. Höhmnn & F. Welter (Eds.), *Trust and entrepreneurship: A West-East perspective* (pp. 7–23). Edward Elgar Publishing.
- Höhmnn, H.-H. & Welter, F. (Eds.). (2002). *Entrepreneurial strategies and trust: structure and evolution of entrepreneurial behavioural patterns in East and West European environments; concepts and considerations* (Arbeitspapiere und Materialien / Forschungsstelle Osteuropa an der Universität Bremen, 37). Bremen: Forschungsstelle Osteuropa an der Universität Bremen. <https://nbn-resolving.org/urn:nbn:de:0168-ssolar-437556>
- Höhmnn, H. H., & Welter, F. (Eds.). (2005). *Trust and entrepreneurship: A West-East perspective*. Edward Elgar Publishing.
- Johnson, S., McMillan, J., & Woodruff, C. (1999). Contract enforcement in transition (No. 211). CESifo Working Paper.
- Khanna, T. (2018). *Trust: Creating the foundation for entrepreneurship in developing countries*. Berrett-Koehler Publishers.
- Knack, S., & Keefer, P. (1997). Does social capital have an economic payoff? A cross-country investigation. *The Quarterly Journal of Economics*, 112(4), 1251–1288. <https://doi.org/10.1162/003355300555475>
- Kornai, J., Rothstein, B., & Rose-Ackerman, S. (Eds.). (2004). *Creating social trust in post-socialist transition*. Springer.
- Kresic, A., Milatovic, J., & Sanfey, P. (2017). Firm performance and obstacles to doing business in the Western Balkans: Evidence from the BEEPS. EBRD Working Paper No. 200. <https://ssrn.com/abstract=3119154> or <http://dx.doi.org/10.2139/ssrn.3119154>
- Manolova, T. S., Gyoshev, B. S., & Manev, I. M. (2007). The role of interpersonal trust for entrepreneurial exchange in a transition economy. *International Journal of Emerging Markets*, 2(2), 107–122. <https://doi.org/10.1108/17468800710739207>
- McKnight, D. H., & Chervany, N. L. (2001). What trust means in e-commerce customer relationships: An interdisciplinary conceptual typology. *International Journal of Electronic Commerce*, 6(2), 35–59. <https://doi.org/10.1080/10864415.2001.11044235>
- Mickiewicz, T., & Rebmann, A. (2020). Entrepreneurship as trust. *Foundations and Trends® in Entrepreneurship*, 16(3), 244–309. <https://doi.org/10.1561/03000000088>
- Peng, Y. (2004). Kinship networks and entrepreneurs in China's transition economy. *American Journal of Sociology*, 109(5), 1045–1074. <https://doi.org/10.1086/382347>
- Pennington, R., Wilcox, H. D., & Grover, V. (2003). The role of system trust in business-to-consumer transactions. *Journal of Management Information Systems*, 20(3), 197–226. <https://doi.org/10.1080/07421222.2003.11045777>
- Petrićušić, A. (2013). Democracy without citizens: Inadequate consolidation in two decades of the Western Balkans democracy. *European Quarterly of Political Attitudes and Mentalities*, 2(4), 34.
- Raiser, M., Haerpfer, C., Nowotny, T., & Wallace, C. (2002). Social capital in transition: A first look at the evidence. *Sociologický Časopis/Czech Sociological Review*, 38(6), 693–720.

- Raiser, M., Rousso, A., & Steves, F. (2004). Measuring trust in transition: Preliminary findings from 26 transition economies. In J. Kornai, B. Rothstein & S. Rose-Ackerman (Eds.), *Creating social trust in post-socialist transition* (pp. 55–70). Palgrave Macmillan.
- Raiser, M., Rousso, A., Steves, F., & Teksoz, U. (2007). Trust in transition: Cross-country and firm evidence. *The Journal of Law, Economics, & Organization*, 24(2), 407–433. <https://doi.org/10.1093/jleo/ewm060>
- Richey, S., & Ikeda, K. I. (2009). Institutional incentives and trust: Marginalized groups and the creation of trust in local government. *Social Science Quarterly*, 90(4), 911–926. <https://doi.org/10.1111/j.1540-6237.2009.00669.x>
- Rus, A., & Iglič, H. (2005). Trust, governance and performance: The role of institutional and interpersonal trust in SME development. *International Sociology*, 20(3), 371–391. <https://doi.org/10.1177/0268580905055481>
- Sanfey, P., & Milatović, J. (2018). The Western Balkans in transition: Diagnosing the constraints on the path to a sustainable market economy. *European Bank for Reconstruction and Development, Background Paper for the Western Balkans Investment Summit Hosted by the EBRD*, 26.
- Sanfey, P., & Milatović, J. (2019). The Western Balkans regional economic area: From economic cooperation to economic integration. In R. Osbald & W. Bartlett (Eds.), *Western Balkan Economies in Transition* (pp. 15–27). Springer.
- Šimić Banović, R., Čeh Časni, A., & Vučković, V. (2020). Does the (mis)trust in public institutions lead to greater prevalence of the 'economy of favours' in the European Union societies: A business sector perspective. In *Interdisciplinary Management Research XVI*.
- Šporer, Ž., & Sekulić, D. (2011). *Gubimo li povjerenje u institucije*. Kregar, J., Sekulić, D. & Šporer Ž, Korupcija i povjerenje. Centar za demokraciju i pravo Miko Tripalo and Pravni fakultet Sveučilišta u Zagrebu, pp. 71–117.
- StataCorp. (2013). *Stata: Release 13*. Statistical Software: StataCorp LP.
- Tan, J., Yang, J., & Veliyath, R. (2009). Particularistic and system trust among small and medium enterprises: A comparative study in China's transition economy. *Journal of Business Venturing*, 24(6), 544–557. <https://doi.org/10.1016/j.jbusvent.2008.05.007>
- Thanetsunthorn, N., & Wuthisatian, R. (2019). Understanding trust across cultures: An empirical investigation. *Review of International Business and Strategy*, 29(4), 286–314. <https://doi.org/10.1108/RIBS-12-2018-0103>
- Uslaner, E. M. (2004). Trust and corruption. In Lambsdorff, J.G., Taube, M., Schramm, M. (eds.), *The New Institutional Economics of Corruption* (pp. 90–106). London: Routledge.
- van Ees, H., & Bachmann, R. (2005). Trust-building in different forms of systemic transition. In H. H. Höhmann & E. Malieva (Eds.), *Trust and entrepreneurship: A West-East perspective* (pp. 99–113). Edward Elgar Publishing.
- Wallace, C., & Latcheva, R. (2006). Economic transformation outside the law: Corruption, trust in public institutions and the informal economy in transition countries of Central and Eastern Europe. *Europe-Asia Studies*, 58(1), 81–102. <https://doi.org/10.1080/09668130500401707>
- Welter, F. (2012). All you need is trust? A critical review of the trust and entrepreneurship literature. *International Small Business Journal: Researching Entrepreneurship*, 30(3), 193–212. <https://doi.org/10.1177/0266242612439588>
- Welter, F., & Smallbone, D. (2006). Exploring the role of trust in entrepreneurial activity. *Entrepreneurship Theory and Practice*, 30(4), 465–475. <https://doi.org/10.1111/j.1540-6520.2006.00130.x>
- Welter, F., & Smallbone, D. (2011). Institutional perspectives on entrepreneurial behavior in challenging environments. *Journal of Small Business Management*, 49(1), 107–125. <https://doi.org/10.1111/j.1540-627X.2010.00317.x>

Appendix. Kernel density plots

